

FIG. 1

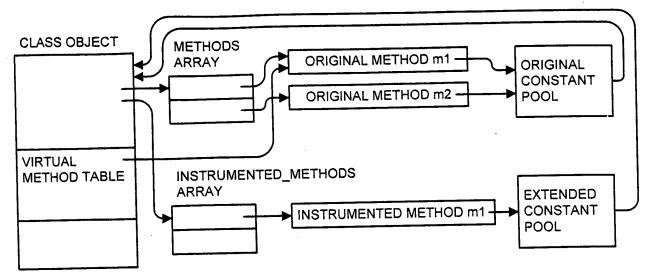


FIG. 2

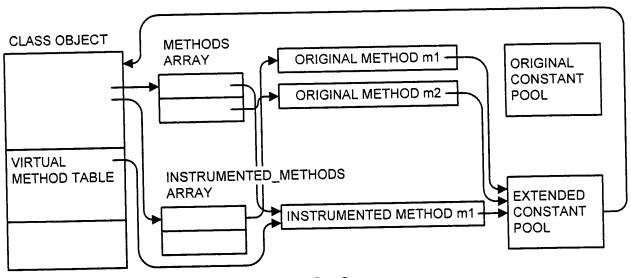


FIG. 3

```
// Push the simulated stack pointer for this thread
// Set the simulated stack method invocation
                                                                                                                                                                                                                                                                       // Entered root method from outiside this call graph
                                                           // Avoid recursive instrumentation invocation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          // ... Perform other thread creation-related operations. Set the stack pointer.
// ... Obtain the timestamp and record the "method entry" event
ti.inProfilerRuntimeMethod = false;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             current time
                                                                                                                                                                                                                                                                                                           ti.inProfilerRuntimeMethod = true;
if (ti == null) { // This thread never entered this call graph before
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               taken
                   // Get record for current thread
                                                                                                                                                                                                    // ... Obtain current time and record the "method entry" event
                                                                                                                                                                                                                                                                                                                                                                                      // ... Record the new profiled thread creation event
public static void methodEntry(short methodId) {
                                                                                if (ti.inProfilerRuntimeMethod) return;
                                                                                                                                                                                                                                                                                        else if (methodId == rootMethodId) {
                                                                                                                                                                                                                                                                 ti.inProfilingRuntimeMethod = false;
                                                                                                                                                          ti.stack[ti.stackDepth] = methodId;
                                                                                                                                                                                                                                                                                                                                                                 ti = ThreadInfo.newThreadInfo();
                                                                                                       ti.inProfilerRuntimeMethod = true;
                                                       != null && ti.inCallGraph)
                              ThreadInfo ti = getThreadInfo();
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ti.inCallGraph = true;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                current time
                                                                                                                                           ti.stackDepth++;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  taken
```

FIG. 5

time

 χ_2

l exact

7

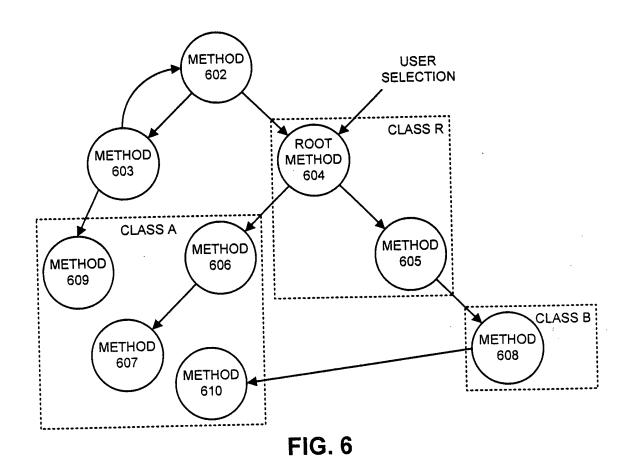
×

methodExit() call returns

methodExit() call starts

methodEntry() call returns

methodEntry() call starts



CLASS NAME 702 LOADED FLAG 704

CLASS X

METHOD TABLE 706

m1()

m2()

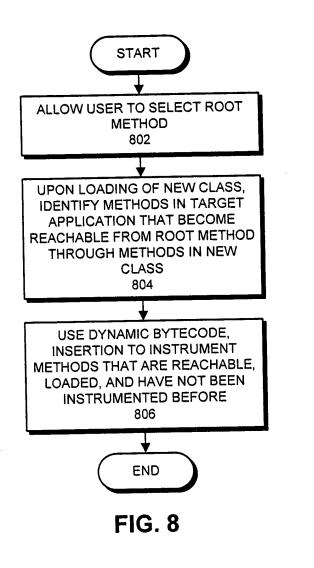
m3()

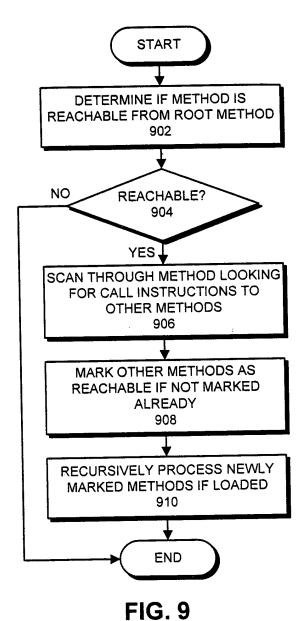
REACHABLE FLAG 712

NAME

708

FIG. 7





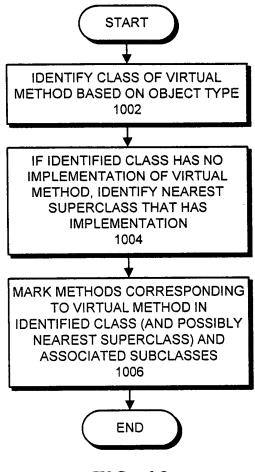


FIG. 10